

## Fused Silica, UV-Grade Synthetic Quarzglass



### Special Properties

- Very high ultraviolet transmission (UV)
- Low thermal expansion
- Very high temperature resistance
- Very high temperature change resistance
- High thermal shock resistance
- High material purity
- Low fluorescence

### Typical Applications

- UV-transmitting optics
- High temperature applications
- Cover slides for ultraviolet light applications
- Mirror substrates
- Measurement and sensor technology
- Windows for spacecrafts

Fused Silica is a synthetic molten amorphous quartzglass. A very high optical transmission in the ultraviolet spectrum and an enormous temperature resistance are only two of the unique properties of this material. The remarkably high UV transparency cannot be performed by any other glass. Synthetic quartz glass has a low thermal expansion and a very high thermal shock resistance. Fused Silica components are manufactured from large material blocks (boules). The raw material is sawn, ground, polished and shaped to the desired specification. The material can be selected for inclusions and index homogeneity requirements.

### Specifications\*

#### Show Transmission Curve

#### Refractive Index

- $n_D = 1,45840$  (589nm)

#### Density

- $2,20 \text{ g/cm}^3$

#### Homogeneity

- Homogeneity specifications (Class AA-E) on request

#### Inclusion Classes

- Class 0 to 5 (detailed specifications on request)

#### Average Coefficient of Thermal Expansion

- $0,54 \times 10^{-6}$

#### Thermal Characteristics

- Softening Point approx.  $1585^\circ\text{C}$
- Annealing Point approx.  $1075^\circ\text{C}$
- Strain Point approx.  $990^\circ\text{C}$

Further detailed specifications on request.

\*Please consider the "Notes on technical specifications"

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*Here you will find technical specifications and properties of fused silica, quartz glass, quartz. Fused silica 7980, corning fused silica, fused quartz quartz-glass, UV-grade Fused Silica, used to transmit ultraviolet light and also used as high temperature glass.*